

Appendix Q

Water Shortage Response Plan



**SAMMAMISH
P L A T E A U**

WATER AND SEWER DISTRICT

SAMMAMISH PLATEAU WATER AND SEWER DISTRICT

**WATER SHORTAGE RESPONSE PLAN
FOR DEMAND REDUCTION DURING
EMERGENCY, OPERATIONAL, AND DROUGHT SITUATIONS**

REVISED MAY 2007

ADOPTED RESOLUTION NO. 2725

SAMMAMISH PLATEAU WATER AND SEWER DISTRICT

WATER SHORTAGE RESPONSE PLAN
FOR DEMAND REDUCTION DURING
EMERGENCY, OPERATIONAL, AND DROUGHT SITUATIONS

REVISED MAY 2007

PLAN OBJECTIVES

The Water Shortage Response Plan (WSRP) provides systematic responses and methods to reduce customer water demand due to a water supply shortage from an emergency, drought event, or operational situation.

The objective of the WSRP is to establish actions and procedures for evaluating supply options and managing water demand during a water supply shortage. It is intended for use during infrequent and unusual events, and is not a substitute for the development of water supply projects and conservation programs. The WSRP establishes strategies in advance of actual conditions. The District is prepared to maintain essential public health and safety, and minimize adverse impacts to residents and businesses, should a water shortage event occur.

PLAN DEVELOPMENT

The Water Shortage Response Plan was originally developed in January 2001 in response to an anticipated drought that was predicted and did eventually occur in 2001. Development of this WSRP drew from information contained in the Water Shortage Contingency Plans of Seattle Public Utilities and the City of Redmond. The District also utilized information from the Washington Department of Health's "Guidelines for the Preparation of Water Shortage Response Plans." These water providers developed plans in response to the 1992 regional water supply shortage in order to establish strategies prior to the next regional water shortage situation. In 2001, the District also created a Water Conservation Task Force to examine water supply and demand issues, develop criteria for implementation of the WSRP, develop water use reduction goals, and develop water use reduction methods.

The WSRP was revised in May 2007 to reflect changes in the District's water supply situation. The District is currently receiving water from Seattle's regional water supply. Cascade Water Alliance is managing the Seattle contracts for its members, including the District. Cascade has future plans to receive regional water from Tacoma Public Utilities and will eventually utilize Lake Tapps for water supply for its members.

During normal weather years, the District's Water Conservation Committee meets monthly to keep apprised of current water conservation issues. During water shortage events, the Committee forms the Water Conservation Task Force to coordinate the short term water shortage response. When a water shortage situation is identified, the Board of Commissioners will direct the Task Force to implement the WSRP.

PLAN DESCRIPTION

The WSRP provides approaches that can be tailored to specific water shortages. The responses become more assertive as conditions become progressively more serious. These responses are presented in four stages, Advisory, Voluntary, Mandatory and Rationing.

In Stage One, the "Advisory" stage, customers are informed as early as meaningful data is available that water supply and demand conditions may result in a less than normal supply of water. If the supply and demand situation which was foreseen at the Advisory stage then deteriorates, the next step in the WSRP is the Stage Two, the "Voluntary" stage, which relies on the voluntary cooperation and support of customers to meet water use reduction goals. Water users are given the opportunity to contribute their "share" of water savings to achieve a District-wide goal of reduced consumption. If the Voluntary measures have not or are not able to provide the necessary reduction in water use the WSRP moves to Stage Three, the "Mandatory" stage. Stage Four, the "Rationing" stage is used when extraordinary levels of reduction are required to ensure the demand does not exceed the supply, and that public health and safety are not compromised.

A menu of water use reduction measures have been developed for each WSRP Stage. Actions to respond to the specific water shortage situation can be tailored through choices within the menus. More severe Stages build on previous Stages. Objectives and actions from less severe Stages should all be considered for implementation with a more severe Stage. During a water shortage situation the Task Force will provide a recommendation for specific implementation of the WSRP to the General Manager and Board of Commissioners.

PLAN IMPLEMENTATION CONSIDERATIONS

There are issues associated with implementing the WSRP that are relevant to all four Stages. These matters should be considered prior to implementation of the WSRP and when changing WSRP Stages:

- ❖ Each water shortage situation will be unique. The WSRP cannot anticipate every possible scenario and predict all supply and demand management actions that may be necessary. The WSRP establishes a range of supply and demand management actions in advance of the situation and defines the mechanisms by which decisions can be made and communicated during the event.
- ❖ Communication is the key to providing customers with the information necessary to implement and achieve water use reductions during a water shortage situation. Providing a clear and consistent message throughout each situation requiring implementation of the WSRP is considered a priority. Contact through signage and direct mail should be considered in addition to radio, TV and print media.
- ❖ The media can play an important role during such an event by communicating the nature and significance of such an event and that actions are being taken to manage the situation. During

water shortage emergency events, the District General Manager serves as the Public Information Officer (PIO) to the media, with trained backup personnel to assist as necessary. All media requests for information go through the General Manager. The scope and severity of an event may also affect the role the media is willing to take in broadcasting information.

- ❖ Customers prefer to be provided an opportunity to meet water use reduction goals through voluntary compliance measures. The decision to enact mandatory restrictions is less controversial if it is evident to the public that a voluntary approach has not sufficiently reduced the demand.
- ❖ During each WSRP Stage, customers are asked to curtail certain water uses in order to reduce demand. This may result in hardships for some customers. Cooperation with the curtailment actions is more likely if the public perceives the actions to be fairly distributed.

PLAN IMPLEMENTATION FACTORS

When a water shortage situation is identified, the Task Force will convene to consider whether the WSRP should be implemented, and at what Stage implementation should start. A variety of factors would form the basis of these decisions, including the following:

Water Supply Factors

- Groundwater rights status for that particular year.
- Available groundwater supply and operational condition of District wells.
- Current aquifer levels.
- The rate of decline in aquifer levels, compared with the normal operating levels.
- Surface water situations in proximity to District wells.
- Available surface water supply in the regional water system, and whether or not the purveyor of the regional supply has entered into its own water shortage contingency plan.
- Water supply situation of adjacent purveyors and the availability of water through emergency interties if necessary.
- Amount of time required to implement a supply enhancement measure.
- Weather conditions as derived from short and long term weather forecasts and modeling by the National Weather Service and the Drought Monitor.

Water Demand Factors

- Trends and seasonal forecasts for the system's daily water demands.
- The estimated margin of safety provided by the demand reduction compared with the level of risk assumed if no action is taken.
- Amount of time required to implement a water use reduction measure.
- Media availability.
- Ease of customer understanding of water use reduction measure.
- Customer response.
- Magnitude of expected savings provided by a water use reduction measure.

Other Factors

- The value of lost water sales revenue compared with the increased margin of reliability.
- Consultation with the District's Board of Commissioners and elected officials and staff of other local and regional government entities.
- The length of time a WSRP stage would be in place. (This determination should avoid implementation followed quickly by termination, and then potential re-implementation of the WSRP. This is to avoid confusion and to enhance the customer's confidence in the Board's decision.)
- Required time lags to shift administrative gears and institute measures.
- Ultimate cost to the District customers, both residential and commercial.
- Equity in demand reduction between customer classes.
- Current events.

WATER SUPPLY SHORTAGE DESCRIPTIONS

Emergencies

Water shortage emergencies could potentially occur when there is damage to major infrastructure that in turn affects water supply, storage or distribution to customers' homes and businesses. Response to this type of emergency includes reestablishing water for basic domestic uses as well as for fire protection. The Sammamish Plateau Water and Sewer District's *Emergency Response Plan* should be referred to during any water supply shortage emergency. The Emergency Response Plan includes procedures to be followed during an emergency situation to reestablish the systems operation.

Emergencies are characterized by urgency and may initially require quick and immediate responses. The initial response may have a lack of preparation time to implement meaningful water use reduction strategies. Once an assessment has been made on the length of time necessary to restore normal service, the response strategy may change. Emergencies may require major curtailment actions by customers in a short period of time. Emergencies may be also be localized, requiring water use reductions in a small geographic area. Flexibility is the key to designing any emergency strategy.

Droughts

Droughts are naturally occurring but unpredictable weather events of varying frequency, duration and severity. Available regional data indicate that a low probability of a multiple year drought exists in our region. This data includes weather records collected for the past century, tree ring analysis, and soil sampling.

The Sammamish Plateau Water and Sewer District is primarily served by a groundwater system. The District's distribution system is divided into two hydraulically distinct zones: the Plateau Zone, located south of the Redmond/Fall City Road, and the Cascade View Zone, located north of the Redmond/Fall City Road. The Plateau Zone is supplied by eleven wells. The Cascade View Zone is supplied by three wells. For management of water system operations, the District assumes annual recharge of the aquifers tapped by District wells normally occurs. Because the District wells tap multiple aquifers at varying depths it is unlikely that all District wells will be

equally affected by a drought event. The District's management of the groundwater resource includes aquifer storage and recovery (ASR), where regional water is pumped into the aquifers and stored during the winter months to better prepare for the summer peak season. The District has a permit with the Washington Department of Ecology to conduct the ASR program. Unusual weather events such as a dry winter season can affect this recharge cycle and cause shortages.

Development on the Sammamish Plateau has led to increase in both the amount of impervious surfaces throughout the areas served by the District and the demand for water service. Impervious surfaces may direct surface water to storm drains, and eventually into streams, rivers and lakes, instead of percolating through the soil and recharging aquifers. As development and impervious areas increase, the impacts of reduced rainfall during a drought event will be accentuated. During summer peak season demand, particularly in a dry year, demands increase more leading to increased pumping of the supply wells and lower aquifer levels.

A summer of sustained higher than normal temperatures and following a winter of lower than normal precipitation can contribute to considerable aquifer drawdown, which affects both water quantity and quality. Although drawdown around the wells can become a problem, the District's groundwater aquifers generally act as storage reservoirs. Drought events lasting one or two years usually impact the District less than other purveyors that rely on a surface water supply.

The District is a member of the Cascade Water Alliance, which consists of eight member utilities that serve over 300,000 customers. The District currently receives water from the regional supply system operated by Seattle Public Utilities. As such, both Cascade and the District are subject to any water shortage events that affect the Seattle utility. In addition, Cascade is limited to a block of water supply, which, if exceeded, can lead to substantial monetary penalties. Cascade manages the Seattle contract and is also looking to Tacoma Public Utilities and Lake Tapps for future sources of supply.

Operational Situations

An Operation Situation requiring implementation of the WSRP can occur when a critical link in the District's system is not available for service. The inability to operate a portion of the water system at full capacity may result in a situation where there is a need to achieve a significant water use reduction, but over a limited period of time. The affected critical link could be a storage tank, well, booster pump, treatment system, telemetry system or transmission facility.

As demand within the District increases, the flexibility of the system decreases. The ability to shift operations between wells decreases as all wells become required to operate at or near their capacity. The storage needed within each pressure zone also gets closer to the systems design capacity making it more difficult to schedule necessary maintenance. In other words, as the District grows, the wells, booster pumps, transmission mains and storage tanks will be operating at or near their capacity. In this situation, it will become more difficult to adjust operations for maintenance and required replacements. Although some relief has come with the advent of the regional water supply, managing the District's water supply system can still be challenging at times.

However, by comparing operation and maintenance schedules for each year with anticipated demands, these water shortages can often be identified in advance. This advance notice can be used to implement the WSRP in a controlled, systematic manner.

WSRP Water Use Reductions (Curtailment) versus Conservation

There are important differences between long-term conservation programs and curtailment, or reducing water use during a WSRP situation. During a WSRP emergency, actions are designed to quickly reduce water use, are relatively short-lived, and usually involve some tradeoffs or hardships for customers. Conservation programs, on the other hand, are long-term programs structured to encourage customers to reduce water waste and increase water efficiency in a sustainable manner. Some programs offer financial incentives for implementing water conservation, such as the District's commercial irrigation audit program or Cascade's washing machine rebate program. The focus of the public message and information strategy is different for each program. The long-term conservation message of encouraging an environmental ethic and saving money shifts during water supply shortage situations to a more personal message. However, conservation methods included in the Conservation program may be promoted as part of the strategies employed during a water supply shortage situation.

WATER SHORTAGE RESPONSE PLAN STAGES

STAGE ONE: ADVISORY STAGE

Objectives:

- To prepare the District and water customers of a potential water shortage, thereby allowing all parties adequate time for planning and coordination.
- To undertake supply management actions that forestall or minimize the need later for more stringent demand or supply management actions.

Triggers:

There are a variety of conditions that may cause concern about water availability and signal a potential water shortage. Conditions that would trigger the Advisory Stage include:

- Total aquifer supply storage is not projected to be at standard operating capacity as of June 1, due to low aquifer levels.
- Total aquifer supply storage is significantly below historical normal levels for the current time of year, and data indicates that expected demands may not be met if this trend worsens or continues.
- Total regional supply is significantly below historical normal levels, and regional water purveyors have indicated an intention to implement the advisory stage of their plans.
- Weather conditions over the previous winter(s) have been particularly dry with lower than normal rainfall quantities.
- Operational situations are predicted that may affect the District's ability to provide water service at a level necessary to meet projected demands.

The Advisory may be withdrawn when water supply conditions return to a normal situation.

Public Message:

"The potential exists for lower than normal water supply. Customers **may** be asked to reduce consumption unless conditions return to normal. We will keep you informed."

Or

"The potential exists for operational situations that would make it difficult for the demand to be met at all times. Customers **may** be asked to reduce consumption until the situation is corrected. We'll keep you informed."

Internal Operating Actions:

1. The District's Water Conservation Task Force will meet to evaluate conditions, determine actions and make task assignments.

2. Intensify communication with all staff members, particularly water team members.
3. Intensify data collection actions for well pumping records, tank level records, monitoring aquifer levels, regional water supply levels and weather conditions.
4. Assess current water main flushing activities to determine whether they should be accelerated to be completed prior to the peak season, or reduced to conserve supply.
5. Assess water quality in aquifers and distribution system to target areas that may experience severe degradation with reduced consumption.
6. Develop a list of critical water uses and users.
7. Initiate planning and preparation for Voluntary stage actions. Evaluate the ability, resources, and plans to move into the Voluntary stage and begin preparatory measures

Communication Actions:

1. Brief the Board of Commissioners and all District staff members.
2. Intensify the ongoing local print media education effort regarding the water system, particularly the relationship between supply and demand. Provide current data to local newspapers. Media lists can be found in the District's *Emergency Response Plan*.
3. Provide status report to entities with special interests, public agencies, including the Cities of Sammamish and Issaquah, Northeast Sammamish Sewer and Water District, Eastside Fire and Rescue, the Lake Washington and Issaquah School Districts, King County Parks Department, King County Department of Development and Environmental Services (DDDES), Cascade Water Alliance and large commercial customers.
4. Prepare and distribute public information materials explaining the WSRP Stages and expected ranges of actions. Depending on the time available to disseminate information, this may include newsletters or other bill inserts or direct mail.
5. Prepare "Frequently Asked Questions and Answers" for customers, including developers, that may be planning new landscaping. This information should include time of day and seasonal considerations.
6. Post updated status reports on the District's website.
7. Develop and monitor a "Water Use Reduction Hotline" for customers to receive information about WSRP stages and tips for water conservation.
8. Post signs at entrances to areas served by the District. Signs would promote conservation and could include information supporting the use of the District's lawn watering calendar.

STAGE TWO: VOLUNTARY STAGE

Objectives:

- To inform the District water customers of a water shortage, and the need to reduce water use and eliminate water waste.
- To reduce water use to meet consumption goals through voluntary customer actions.
- To forestall or minimize the need for more stringent demand or supply management actions.
- To minimize the disruption to customers while meeting consumption goals.
- To maintain the highest water quality standards throughout the shortage.

Triggers:

The Voluntary Stage is implemented when one or more of the following factors apply:

- The limited water supply conditions identified in the Advisory Stage have developed.
- Operational situations exist that will limit the District's ability to provide water supply.
- Water use demand projections indicate a systematic response to reducing the demand is required.

Public Message:

"We are relying on the support and cooperation of **all** water users to reduce consumption and stretch the water available. Demand needs to be reduced by _____ percent, or by ___gallons per household per day. Customers are responsible for determining how they will meet that goal. Water waste is not acceptable. If everyone cooperates, more stringent restrictions may be avoided." [Blanks are to be filled based on each particular situation.]

Internal Operating Actions:

1. Continue actions listed in Advisory Stage.
2. Water Team to prepare weekly reports for the Task Force on supply conditions and consumption levels.
3. Task Force will consider the current and projected supply conditions and the seasonal demand and set consumption goals, which may be revised as necessary.
4. Eliminate all operating system water uses, such as pipeline flushing, where determined to be non-essential to maintain water quality.
5. Restrict hydrant permits to essential purposes, including recall of hydrant permits previously issued. This should include contacting each registered hydrant user.
6. Eliminate washing of District fleet vehicles except by recycling car washes.
7. Limit hosing of sidewalks, driveways, parking lots, etc. at District facilities to situations where it is necessary for public health and safety.

8. Limit landscape watering around District office and water established plants only when necessary. Water early in the morning to reduce evapotranspiration rate.
9. Activate any regional interties as necessary to increase emergency supply availability, if regional supplies are available during the water emergency.
10. Activate any existing emergency interties with adjacent purveyors to increase emergency supply availability.
11. Increase water quality monitoring actions.
12. Task Force and District managers will evaluate whether target consumption levels and supply conditions warrant a rate surcharge to reinforce voluntary actions and/or to recover revenue losses. District staff will work through the General Manager to make a recommendation to the Board of Commissioners.
13. Initiate remaining planning and preparation for the Mandatory Stage.

Communication Actions:

1. Water Conservation Task Force will establish systematic communications with Board of Commissioners, including the suggested nature and scope of the voluntary measures and strategies.
2. Provide status reports to entities with special interests, public agencies including the Cities of Issaquah and Sammamish, Northeast Sammamish Sewer and Water District, Eastside Fire and Rescue, the Lake Washington and Issaquah School Districts, King County Parks Department, King County DDES, Cascade Water Alliance and large commercial customers.
3. Coordinate with affected agencies regarding demand management actions, especially in the reduction of irrigation for parks and athletic fields.
4. Customer service personnel will notify customers of obvious water waste, such as hoses without shutoff nozzles, irrigating during the heat of the day, excessive water running into storm drains, etc., with "Water Conservation Notice" door hangers. The door hangers inform the customer about water waste and the need to conserve.
5. Conservation and Public Information Specialist will initiate a public information, media and advertising campaign:
 - Issue press releases to local newspapers, television and radio stations, including the Regional Public Information Network.
 - Publish a list of recommended actions for customers to take to reduce their water consumption in local newspapers, the District newsletter, and the District website.
 - Send out a direct mailing to all District customers with a list of the recommended actions.

- Promote consumption goals for typical households, and a percentage reduction goal for commercial customers.
 - Develop a marketing plan that serves to keep customers informed about supply and demand conditions, recommends customer actions to reduce demand significantly; reinforces desired customer actions, and reminds customers that if goals are not achieved, mandatory restrictions may be necessary.
 - Identify what potential next steps will be to reduce demand including timing, type of restrictions, and if surcharges should be imposed.
 - Provide water quality information in public information, so that if flushing is necessary, the public understands that it is essential for water quality maintenance.
6. Post updated status reports on District website.
 7. Promote the "Water Use Reduction Hotline" for customers to receive information about WSRP Stages and tips for water conservation.
 8. Post signs at entrances to areas served by the District. Signs would promote conservation and could include information supporting the use of a lawn-watering calendar.
 9. Identify customers with large irrigation accounts and promote use daily weather information, such as rainfall and evapotranspiration (ET) rates to minimize irrigation use.
 10. Contact largest customers to request a percentage reduction.
 11. Request Eastside Fire and Rescue to limit training exercises that use water.

CUSTOMER WATER USE REDUCTION ACTIONS

Examples of Residential Indoor Actions:

- Put food coloring in your toilet tank. If it seeps into the bowl without flushing, you have a leak. Fixing it could save up to 1,000 gallons per month.
- Run your clothes washer and dishwasher only when they are full and save 1,000 gallons per month.
- Keep a pitcher of cold drinking water in the refrigerator, rather than running the faucet until the water gets cold.
- Shorten your showers by a minute or two and save 150 gallons per month. Try to limit showering time to five minutes.
- Avoid letting the faucet run while shaving, brushing teeth, or washing vegetables and save up to 25 gallons per month.

- While waiting for hot water, use a container to catch tap water that would normally be wasted for use on indoor or outdoor plants.

Residential Outdoors:

- Wash cars less often. Instead of using the hose, consider a commercial car wash that recycles water.
- Do not use water to clean sidewalks, driveways, and decks. Use a broom or a power blower instead.
- Always use a shut-off nozzle when using the hose. Be sure there are no leaks in any hose fittings.
- Eliminate outdoor water play, such as running through a sprinkler, plastic water slides, and wading/swimming pools that require frequent re-filling.
- Cover pools and hot tubs when not in use to minimize evaporative losses.

Commercial and Residential Landscape:

- Water lawns and gardens only early in the morning or late in the evening to reduce water loss from evaporation. 30% or more of your water is lost to evaporation when watering in the heat of the day.
- Consider letting established lawns go dormant until the shortage is over. Homes that normally water lawns will save from 25% to 50% by not watering lawns. Water your lawn deeply at least once a month to help it survive the drought.
- Do not water lawns when it is raining! Learn how to change the program that controls your system in order to cut back on irrigation time. Turn off automated irrigation system clocks during rainy spells. Consider installing a rain sensor on automatic irrigation systems that will override the system during rainfall. Consider having an irrigation audit done to ensure that your system is using water efficiently.
- Water established plants only when necessary, testing the soil moisture levels in the root zone with your fingers. Two to four inches of mulch (such as compost or wood chips) in your planting beds will help retain moisture.
- Use a rain barrel to capture water from rooftops. Water from rain barrels can be used to water plants or for car washing.
- Create tree wells around trees to minimize runoff when watering.

Commercial:

- Set goals for reduced water use and inform managers and employees. Give businesses ideas for limiting water use and ask them for theirs.

- Repair all leaks and dripping faucets. Ensure that constantly running toilets are repaired. Urge employees to report leaks. Encourage the installation of 1.6 gallon per flush toilets in older commercial buildings.
- Reduce or eliminate routine vehicle cleaning during the shortage. Use a local commercial car wash facility that recycles water.
- Ensure that all hoses are fitted with shut-off nozzles.
- Eliminate hosing as a means of disposing of used ice.
- Eliminate all hosing of walkways, parking lots and loading docks. If washing paved areas is necessary for public health and safety, pressure washers use substantially less water.
- Postpone routine building washing until after the shortage.
- Post signs informing customers of the nature of the water shortage and ask for cooperation in reducing water use.
- Turn off all non-recirculating fountains. On windy days, when there is significant water loss, turn off **all** fountains.
- Ask restaurants to deliver water only on request.
- Accelerate restrooms upgrades by replacing older toilets with 1.6 gallon-per-flush models.

STAGE THREE: MANDATORY STAGE

Objectives:

- To ensure that throughout the remaining duration of the water shortage, an adequate water supply exists to protect public health and safety.
- To restrict certain defined water uses in order to meet consumption goals that have not been met through voluntary customer actions.

Triggers:

This stage is implemented when the Task Force determines that:

- Measures to reduce water use implemented in the Voluntary Stage are not adequately reducing demand.
- The time available to implement measures to reduce water use is not sufficient to allow education of customers required for voluntary compliance.
- It is evident the level of water use reduction required would not be achieved through voluntary compliance.

Public Message:

"The District finds it necessary to impose mandatory restrictions to reduce demand because the voluntary approach is not resulting in the necessary water use reductions. The District is continuing to rely on the support and cooperation of the public, but needs to restrict certain water uses in order to ensure that throughout the duration of this shortage, an adequate supply of water is available for public health and safety."

Internal Operating Actions:

1. Continue actions from Advisory and Voluntary Stages, as appropriate.
2. Task Force to develop a list of recommended water use restrictions and exemptions from restrictions.
3. Task Force to set up a process for receiving, recording and responding to reported violations of restrictions.
4. Finalize and implement procedures to provide to the Board of Commissioners to adopt water use restrictions and assess fines where mandatory restrictions are not followed. See Mandatory Restrictions Enforcement Checklist.
5. Initiate planning and preparation for the Rationing Stage.

Communication Actions:

1. Water Conservation Task Force will provide periodic reports to the Board of Commissioners, including the suggested nature and scope of the mandatory restrictions, implementation strategies, and customer response data.
2. Provide status reports to entities with special interests, public agencies including the Cities of Issaquah and Sammamish, Northeast Sammamish Sewer and Water District, Eastside Fire and Rescue, the Lake Washington and Issaquah School Districts, King County Parks Department, King County DDES, Cascade Water Alliance and large commercial customers.
3. Through a media campaign and direct mail announce to District customers the:
 - Scope and nature of mandatory restrictions
 - Reasons for imposing the restrictions
 - Consumption goals
 - Additional restrictions that may be imposed if water use reduction goals are not achieved
 - Enforcement mechanisms and fines
 - Projections for how long restrictions will be in place
 - Rate surcharges
4. Clearly distinguish between lawn/turf watering and watering gardens and ornamentals.
5. Clearly identify any exemptions from water use restrictions.
6. Clearly state that no exemptions from lawn watering restrictions will be provided for new lawn installations.
7. Work with King County and City of Sammamish and City of Issaquah Parks Departments to restrict irrigation levels in park areas to levels that meet or exceed the irrigation restrictions, while maintaining public safety.
8. Work with King County, City of Sammamish, and City of Issaquah Planning Departments to defer landscape installation requirements until the shortage is over. Exemptions will not be permitted for watering new lawn installations.
9. If some irrigation is allowed under the water use restrictions, contact large irrigation customers, including Klahanie Homeowner's Association and Providence Point and inform them that the District may shut down their irrigation meters in the event of an immediate water shortage supply situation.
10. Provide area landscape firms with water use restriction information.
11. To promote understanding between neighbors, the District urges customers that irrigate with water from private wells or Lake Sammamish, with legal water rights, to inform the District and neighbors of the water source.
12. Post updated status reports on the District website.

13. Update the “Water Use Reduction Hotline” for customers to receive information about WSRP Stages, water restrictions, and tips for water conservation.
14. Post signs at entrances to areas served by the District. Signs would note major water use restrictions and promote conservation.
15. Continue and enhance communication actions from the Advisory and Voluntary Stages.
16. Advise that Eastside Fire and Rescue discontinue the use of water in training exercises until the emergency is over.
17. Evaluate resources and resources and plans for moving into the Rationing Stage. As appropriate, begin preparatory measures.

MANDATORY CUSTOMER WATER USE RESTRICTIONS MENU

1. Limit all lawn/turf watering to match the Lawn Watering Calendar, or less frequently to one day per week.
2. Prohibit all daytime irrigation - lawn/turf **and** garden watering - between 10:00 AM and 7:00 PM.
3. Prohibit all lawn/turf watering, including new lawn/turf installations.
4. Prohibit use of any ornamental fountain using drinking water for operation or make-up water.
5. Prohibit car washing except at commercial car wash facilities that recycle water.
6. Rescind all hydrant permits.
7. Prohibit washing of sidewalks, streets, decks or driveways, except as necessary for public health and safety.
8. Limit pressure washing of buildings to situations that require it as part of a scheduled building rehabilitation project (e.g. painting.).
9. Prohibit water waste, including untended hoses without shut-off nozzles, obvious leaks, and allowing water running to waste (such as gutter flooding and irrigation systems with spray patterns that are directed at paved areas).

Exemptions:

1. For purposes of dust control, water may be applied to construction areas or other areas needing to comply with air quality requirements at the minimum rate necessary to achieve the desired result. Reclaimed water must be used for dust control where available.
2. Ballfields and playfields may be watered at the **minimum rate necessary** for safety purposes and dust control.
3. Customers with special medical needs, such as home dialysis, will be exempted from any emergency surcharge or restrictions, provided these customers notify the District of such a need. Their exemptions will not apply to outdoor water use.

MANDATORY RESTRICTIONS ENFORCEMENT CHECKLIST

- _____ Determine fines and/or surcharges to be imposed for mandatory restriction infractions. Determine whether or not there will be "one fine for all infractions," or whether certain selected water use reduction actions would command a higher fine than others.
- _____ Determine the number of warnings before fines or surcharges applied.
- _____ Establish a database for tracking violations.
- _____ Print self-duplicating "Notice of Violation" forms, one copy for location where violation occurred, one to record violation with billing. Print violations and fines on the Notice of Violation.
- _____ Assign and train staff with customer service and communication experience to "Water Watch."
- _____ Establish procedure for "Water Watchers" to record warnings and penalties on customer accounts.
- _____ Establish a "hotline" for customers to report violations. To help avoid frivolous complaints, recorded message should note that only complaints with name and address of complainant will be pursued.
- _____ Provide all field and customer service staff members with fact sheets and question-and-answer sheets. Provide briefings on restrictions, enforcement procedures. Train field staff to tag obvious violations.

STAGE FOUR: RATIONING STAGE

Objectives:

- To ensure that throughout the water shortage situation, an adequate water supply exists to protect public health and safety.
- To sharply reduce water demand.
- Restrict certain defined water uses in order to meet consumption goals.

Triggers:

This Stage is implemented when the Task Force determines that:

- If it is necessary to sharply reduce demand, as a critical water supply situation exists.
- Significant water use reduction is required to maintain public health and safety.
- Measures to reduce water use implemented in the Voluntary and Mandatory Stages have not adequately reduced demand.
- The time available to implement measures to reduce water use is not sufficient to allow education of customers required for voluntary or mandatory compliance.
- It is evident the level of water use reduction required would not be achieved through voluntary or mandatory compliance.

Public Message:

"The District finds it necessary to impose water rationing to reduce demand so the public health and safety of District customers can be maintained. The District needs to restrict certain water uses and is relying on the cooperation of the public. Failure to comply with the water use restrictions will result in fines."

Internal Operating Actions:

1. Continue actions from Advisory, Voluntary and Mandatory Stages, as appropriate.
2. Define the problem as an emergency and follow procedures for the Board of Commissioners to formally declare an emergency.
3. Task Force to develop a list of recommended water use to be curtailed and exemptions from curtailment. (Curtailment is used here in place of "Restriction" from the Mandatory Stage, to differentiate between the actions taken during different stages.)
4. Water Conservation Task Force to establish water use reduction goals. Single family residential may be set as a standard per house allotment or as a percentage reduction from the previous years consumption. Since the Rationing Stage is for critical situations the reductions may be requested below the customers normal winter month use. Commercial, multifamily and industrial users will be asked to reduce water use by a set percentage of their average consumption during the previous year.
5. Establish water rate surcharges based on consumption, and provide to the Board of Commissioners for adoption.

6. Establish penalties or excess use charges for customers that exceed the water allotment, and provide to the Board of Commissioners for adoption.
7. Utility billing system to be adjusted or modify billing system to implement any approved surcharges and penalties.
8. Increase enforcement actions, in accordance with the applicable resolution approved by the Board of Commissioners. (See Mandatory Stage.)
9. Provide training for personnel and deploy additional water curtailment enforcement patrols.
10. Inform local law enforcement of curtailment actions and the potential need for assistance.
11. Further enhance aquifer level and water quality monitoring actions.
12. Task Force to increase meeting frequency to daily status briefings, to review the current situation and determine which actions are working and those that need to be improved. Focus on messages that are easy to communicate, implement and have the potential to sharply reduce demand.

Communication Actions:

1. Water Conservation Task Force will increase the frequency of reports to the Board of Commissioners. The initial report will include suggested nature and scope of proposed curtailments. Subsequent reports should provide detail on the implementation of the Rationing State and customer response data.
2. Provide status reports to entities with special interests, public agencies including the Cities of Issaquah and Sammamish, Northeast Sammamish Sewer and Water District, Eastside Fire and Rescue, the Lake Washington and Issaquah School Districts, King County Parks Department, King County DDES and large commercial customers.
3. Through a media campaign as well direct mail, announce to District customers the:
 - Scope and nature of rationing and curtailments
 - Reasons for imposing the curtailments
 - Water use reduction goals
 - Enforcement mechanisms and fines
 - Projections for how long curtailments will be in place
 - Rate surcharges
4. Clearly identify any exemptions from the water use curtailment.
5. Inform customers about possible pressure reductions and problems this may cause.
6. Provide area landscape firms with water use curtailment information.

7. Provide contractors and landscape firms with information on locations to obtain reclaimed water for street cleaning, construction projects, landscape irrigation, dust control, etc. such as from King County wastewater treatment plants.
8. Post updated status reports on the District website.
9. Update the “Water Use Reduction Hotline” for customers to receive information about WSRP Stages, water curtailments, and tips for water conservation.
10. Post signs at entrances to areas served by the District. Signs should note major water use curtailments and promote conservation.
11. Continue and enhance communication actions from the Advisory, Voluntary and Mandatory Stages.
12. Keep Eastside Fire and Rescue informed about the water shortage emergency and require they discontinue the use of water in training exercises until the emergency is over.

RATIONING CUSTOMER WATER USE CURTAILMENT MENU

1. Prohibit all lawn/turf irrigation.
2. Prohibit all lawn/turf watering, including new lawn/turf installations.
3. Prohibit all irrigation of gardens and ornamental landscapes.
4. Prohibit use of any ornamental fountain using drinking water for operation or make-up water.
5. Prohibit car washing except at commercial car wash facilities that recycle water.
6. Rescind all hydrant permits.
7. If a source of reclaimed water is available, prohibit use of water for dust control at construction areas.
8. Prohibit use of water for dust control at construction areas.
9. Prohibit washing of sidewalks, streets, decks or driveways, except as necessary for public health and safety.
10. Prohibit pressure washing of buildings unless water is obtained from sources other than the District.
11. Prohibit filling or addition of water to swimming pools at public and private club facilities.

12. Consider limitation of issuance of new meter installations for irrigation and/or domestic uses.

Exemptions:

1. If a source of reclaimed water is not available and dust control is required to comply with air quality requirements, water may be applied to construction areas or other areas at the minimum rate necessary to achieve the desired result. Reclaimed water must be used for dust control where available.
2. Customers with special medical needs, such as home dialysis, will be exempted from any emergency surcharge or restrictions, provided these customers notify the District of such a need. Their exemptions will not apply to outdoor water use.